

# Published by Authority

# **EXTRAORDINARY ISSUE**

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PART--I-- Orders and Notifications by the Government of Tripura, The High Court, Government Treasury etc.

# GOVERNMENT OF TRIPURA DEPARTMENT OF INDUSTRIES & COMMERCE

No.F.DI/ESTT/1-21/2009/18655-79

Dated, Agartala, the 31st December, 2021.

## NOTIFICATION

In exercise of the powers conferred by proviso to the Article-309 of the Constitution and in supersession of the existing recruitment rules for the post of Senior Instructor, Industrial Training Institute for Non-Engineering Trade (Group-C, Non-Gazetted), the Governor hereby makes the following rules regulating the method of recruitment to the post of Senior Instructor, ITI for Non-Engineering Trade in the Department of Industries & Commerce, Government of Tripura.

- Short title commencement –
- (3) These rules may be called Senior Instructor, ITI for Non-Engineering Trade (Group-C, Non-Gazetted), Department of Industries & Commerce, Recruitment Rules, 2021.
- (4) They shall come into force on and from the date of their publication in the official Gazette.
- 2. The name of the posts shall be as specified in Column-1 of the schedule enclosed.
- 3. Number, classification and scale of pay

The number of the said post, its classification and the scale of pay attached thereto shall be as specified in **Column-2 to 4** of the schedule enclosed at Annexure-I.

Method of recruitment, age limit, qualifications, etc.

The method of recruitment to the said posts, age limit, qualifications and other matters relating to the said post shall be as specified in Columns- 5 to 13 of the Schedule.

- 5. Disqualification: No person-
- (a) Who has entered into or contracted a marriage with a person having spouse living:

Or

(b) Who having a spouse living has entered into or contracted a marriage with any person shall be eligible for appointment to the said post.

Provided that the State Government may, if satisfied that such marriage is permissible under the Personnel Law applicable to such person and the other party to the marriage and that there are other grounds for so doing, exempt any person from the operation of this rule.

6. Power to relax:- Where the State Government if of the opinion that it is necessary or expedient so to do, it may, by order, for reasons to be recorded in the writing, and in consultation with the GA(P&T) Department and concurrence o the Finance Department, Govt. of Tripura, relax any of the provisions of these rules with respect to any class or category of persons.

- 7. **Repeal:** The Recruitment Rules for the aforementioned post existing in this Department are hereby repealed with immediate effect and are replaced by this Recruitment Rules according to the Schedule at Annexure-I enclosed herewith.
- **8. Savings**: Nothing in these rules shall affect reservations, relaxation of age limit and other concessions required to be provided for Scheduled Castes, Scheduled Tribes, Ex-Serviceman and other special categories of persons in accordance with the orders issued by the State Government from time to time in this regard.
- 9. This Notification is issued as per Notification No. 20(1)-GA(P&T)/18, dated 05.06.2018 and Memorandum No. 20(1)-GA(P&T)/18, dated 27.12.2018 issued by the G.A (P&T) Department, Government of Tripura.

By order and in the name of Governor,

or. PAQ. Goyal, IA Secretary

Industries & Commerce Government of Tripura

## ANNEXURE-I

RECRUITMENT RULES FOR THE POST SENIOR INSTRUCTOR, ITI (NON-ENGINEERING TRADE), UNDEL THE DEPARTMENT OF INDUSTRIES & COMMERCE, GOVERNMENT OF TRIPURA.

## SCHEDULE

4		SCHEDOLE	
F.	Name of the post(s)	SENIOR INSTRUCTOR,ITI (No.  a) Sr. Instructor(Stenograph b) Sr. Instructor (Language) c) Sr. Instructor (Social Stud d) Sr. Instructor (Employable) e) Sr. Instructor (Dress Mak f) Sr. Instructor (Fashion To g) Sr. Instructor (COPA) h) Sr. Instructor (DTPO) i) Crafts Instructor (Bambo j) Crafts Instructor (WWT)	ny) Hy) ility Skill) ing) echnology)
2.	Number of post(s)		sts as and when sanctioned by the
120	FI	(Non-Engineering)	
		(a) Sr. Instructor (Steno) = 8 Nos	, and
		(b) Sr. Instructor (Language)=4	
		(c) Sr. Instructor (Social Study) (d) Sr. Instructor (Employability	
		(e) Sr. Instructor (Dress Making) = 14 Nos.	
		(f) Sr. Instructor (Fashion Technology) =6 N	os.
		(g) Sr. Instructor (COPA) =31	
r		(h) Sr. Instructor (DTPO) =8 (i) Craft Instructor(Bamboo)=	3
		(j) Craft Instructor(WWT)=1	
3.	Classification	Group- C (Non-Gazetted)	1
4.	Scale of pay		<u>a</u>
		Pre-revised Scale of Pay	Corresponding revised Scale of Pay
		PB-2, Pay Band Scale	Cell-I of Level-10 of Tripura State
		Rs.5700-24000/- Grade Pay-	Pay Matric-2018 [ Tripura state Civil
		Rs. 4200/-	Services (Revised pay) (First
		Subject to revision by the Gov	Amendment) Rules-2018 ]  7t. from time to time.
		The second secon	The second secon

6.	Method of recruitment whether by direct or by promotion/deputation/transf er and percentage of vacancies to be filled by various methods.  Age limit for direct recruitment	(A) 20% by promotion, failing which by direct recruitment  AND  (B) (i) 80% By direct recruitment through competitive examination to be conducted by a New Institution as per provision of New Recruitment Policy-2018 issued vide Notification NO.F.20(1)-GA(P&T)/18 dated 05-06-2018.  (ii) Written Examination (at least 85% of total marks)  (iii) Skill Test/Interview as the case may be (Not exceeding 15% of total Marks)  iv) Syllabus of the Examination:- (Separate sheet is enclosed as Annexure-A (page-1 to 24)  18 to 40 years. Upper age limit is relaxable by 5(five) years in case of SC/ST/PH/. Candidates and Government Servants. Provided that the SC/ST/PH and Govt, servants shall not get this relaxation over and above the general relaxation of 5(five) years available to them.
7.	Education and other qualification required for direct recruitments	1) Sr. Instructor (Stenography) Qualification- "Bachelor of Vocation (B. Voc) or Degree in Commerce/Arts (with Short hand & Typing) from a UGC recognized University with one year experience in the relevant field.  OR  Diploma (minimum 2-Years) in Commercial Practice from recognized board or relevant Advanced Diploma (Vocational in Stenography) with 2(two) years' experience in the relevant field.  OR  NTC/NAC passed in the Trade of stenographer Secretarial Assistant (English with 3(three) years' experience in the relevant field.  Essential: (i) Relevant National Craft Instructor certificate (NCIC) in any of the variants under DGT.  (ii) Knowledge of Computer application with Proficiency in Type writing (40 words/Minute in Computer) and Stenography (100-words/minute).  (Candidates have to pass the required minimum speed in Type Writing and Short-hand to be conducted as skill Test alongwith the written Test."
		(2) Sr. Instructor (Language)  Academic Qualification: - Degree in Honours in English from a recognized University.  3) Sr. Instructor (Social Study)  Academic Qualification: -" Degree with Honours in Social Science or Sociology from any recognized University "  4) Sr. Instructor (Employability Skill)  Academic Qualification: MBA/BBA/Any Graduate / Diploma in any discipline with two years experience with short term TOT course in employability Skills from DGT Institute. (Must have studied English/Communication Skills and Technical qualification: - Basic Computer at 12th/Diploma level and above).

F10 X (D. 3531)
5) <u>Sr. Instructor (Dress Making)</u> Academic Qualification:- At least Madhyamik or equivalent examination passed
Technical Qualification: (i) A bachelor degree in Fashion/Apparel Technology from UGC recognized University/Deemed University with 1 (one) years' post qualification experience in relevant field.  OR
Diploma (2-years) in Dress Making/Garment fabricating Technology/Costume designing from UGC recognized University/Deemed University with 2 (one) years' post qualification experience in relevant field.
NTC/NAC passed in Dress Making Trade with 3(three) years experience in the relevant field.
(6) Sr. Instructor (Fashion Technology)
Academic Qualification :- At least Madhyamik or equivalent examination passed
Technical Qualification: (i) A bachelor degree (4-years duration) in Fashion Designing/Technology from UGC recognized University/Deemed University with 1 (one) years' post qualification experience in relevant field.
OR B.Voc./Degree (3-years duration) in Fashion Designing/Technology from UGC Recognised University with 2-years experience in the relevant field.
OR
3(Three) years diploma in Fashion Designing/Technology/CDDM from recognized board of education or relevant Advanced Diploma (Vocational) from DGT with 2 (Two) years' post qualification experience.
NTC/NAC passed in Fashion Design & Technology Trade with 3(three) years experience in the relevant field.
7) Sr. Instructor (COPA)  Academic Qualification:- At least Madhyamik or equivalent examination passed
Technical Qualification: (i) B. Voc/Degree in Computer Science / Information Technology from AICTE recognized Institute/UGC recognized University/Deemed University with 1 (one) years' post qualification experience relevant field.  OR
(ii) Post Graduate in Computer Science/Computer application/IT from UGC recognised University or NIELIT B Level with One year experience relevant field.
OR
iii) Bachelor in Computer Science / Computer application / IT OR PGDCA from UGC recognized university OR NIELIT A Level-with two years experience in relevant field.

(iv) 3-years Diploma in Computer Science/IT from recognised Board/Institute/or relevant advanced diploma (Vocational) from DGT with 2 (two) years' experience in relevant field.
OR NTC/NAC passed in COPA Trade with 3(three) years experience in the relevant field.
8) Sr. Instructor (DTPO)  Academic Qualification :- At least Madhyamik or equivalent examination passed
Technical Qualification (i) B.Voc./Degree in Printing Technology from UGC recognised University with one-year experience in computer and Desktop Publishing.
OR Diploma (Minimum 2-years) in Printing Technology from recognised board of education or relevant Advanced Diploma(Vocational) from DGT with 2(Two) years experience in Computer application and Desktop Publishing.
OR NTC/NAC passed in the trade of "Desktop Publishing Operator " with 3(three) years experience in the relevant field.
(9) Craft Instructor (Bamboo) Academic Qualification: - At least Madhyamik or its equivalent examination passed Technical Qualification: B.Voc/Degree in Bamboo Technology/Bamboo studies from UGC recognized university with 1(one) year experience in the relevant field OR Diploma (Minimum 2 years) in bamboo technology/bamboo studies from recognized board of education or relevant advanced diploma (Vocational) from DGT with 2(two) years experience in relevant field. OR NTC/NAC passed in the trade of "Cane Willow and Bamboo Worker/Bamboo Works/Bamboo Technology " with 3(three) years experience in the relevant field.  (10) Craft Instructor(WWT) Academic Qualification: At least Madhyamik or equivalent examination passed. Technical Qualification: Degree in Civil/Mechanical Engineering from AICTE/UGC recognized engineering college/university with 1(one) year experience in relevant field. OR 3-years Diploma in Civil/Mechanical Engineering from AICTE recognised Board of Technical education or relevant Advanced Diploma(Vocational) from DGT with 2-years experience in the
relevant field  OR  NTC/NAC passed in the trade of "Carpenter" with 3(three) years experience in the relevant field

		Essential Qualification for All Trades:  CITS course in relevant trades under NCVT for both Diploma & Degree holders, failing which CITS course will be relaxed at the time of selection of the candidates, but the selected candidates must clear CITS within 3(three) years after appointment to the post and the cost of CITS training will be borne by the candidates itself. In case of noncompletion of CITS Course within stipulated period, the appointment shall be terminated.
8.	Whether age & educational qualifications prescribed for the direct recruitment will apply in case of promotes.	Age- No Qualification- Yes, Academic qualification: At least Madhyamik or its equivalent examination passed
9.	Whether selection or Non- selection post	Non-Selection
10.	Period of probation, if any	(2wo) years
11.	In case of recruitment by promotion / deputation / transfer from which grade promotion / deputation / transfer is to be made	<ul> <li>i) <u>Sr. Instructor(Stenography)</u>:</li> <li>Promotion from Assistant Instructor (Stenography) with 10(ten) years qualifying service in ITI's.</li> <li>(ii) Sr. Instructor (Social Study):- Promotion from Asstt. Instructor who have passed Madhyamik or its equivalent examination with 10(Ten) years qualifying service in ITI's.</li> </ul>
		iii) Sr. Instructor (Dress Making):- Promotion from Tailoring Expert with 10(ten) years qualifying service in ITI's having academic qualification Madhyamik or its equivalent passed.
		iv) Craft Instructor (Bamboo)
		Technical: Assistant Instructor with NTC in Basketry trade with 10 years qualifying service in ITI's failing which by direct recruitment v) Craft Instructor(WWT)
		Technical: Assistant Instructor with NTC in Carpentry Trade with 10 years qualifying service in ITI's failing which by Direct recruitment
12.	If a D.P.C. exists what is its composition	Group-'C'(Non-Gazetted), D.P.C
13.	Circumstances in which public service commission is to be consulted in making Recruitment.	Not applicable
14	Repealed	The existing Recruitment Rules for the post of Senior Instructor (Non-Engg. Trade) vide Notification No. F.DI/ESTT/I-20/ 2002/Part-I/10533-62 dated 25-7-2009 is hereby stand repealed

Industries & Commerce, Government of Tripura

ANNEXURE-'A'

# SYLLABUS FOR DIRECT RECRUITMENT OF SR. INSTRUCTOR (STENOGRAPHY), GROUP-'C', NON-GAZETTED UNDER THE DEPARTMENT OF INDUSTRIES AND COMMERCE, GOVT. OF TRIPURA

The Examination will comprise of Three successive stages viz. (i) Written Examination (Multiple Choice Type Test) carrying 100 marks (ii) Shorthand Writing & Transcription (using computer) of 35 marks & Type Writing (Using Computer) of 35 marks (iii) An Interview cum Personality Test carrying 30 marks.

(A) Scheme of the Written Examination: The Written Examination will consist of one paper viz. a paper on "General knowledge & Current Affairs" and "Trade Aptitude". The paper will be of an Objective Type consisting of 100 Multiple- Choice Question. The paper will carry 100 marks and will be of Two (2) hours duration. The paper consist of Two Parts, namely 1) Part-I General knowledge & Current Affairs (30 questions of 01 marks each) ii) Part-II "Trade Aptitude" (70 questions of 01 marks each). There will be Negative marks for MCQ. For each question for which a wrong answer has been given by the candidate, one-fourth of the marks assigned to that question will be deducted as penalty.

## (B) Details Syllabus for the Written Examination:

### PART-I: GENERAL KNOWLEDGE & CURRENT AFFAIRS

**General knowledge**: Question will include knowledge of Indian History, Geography & Constitution of India of such a nature which the candidate shall able to answer without any special study. Question on Tripura and North Eastern States, its historian Topography will also be included.

**Knowledge of Current Affairs**:-Question will include the knowledge of current events of Local, National & International important and of such matters of everyday observation and experiences in their scientific aspect as may be expected of an educated person who has not made a special study of any scientific subjects.

## PART-II: TRADE APTITUDE

- 1. English Textual Grammar & Composition:- English Composition will cover Synonyms, Antonyms. Use of Common Phrase & Idioms, Use of appropriate Preposition & Articles, Spotting Errors etc. Transformation of sentences i.e Change of voice, Change of Narration, Change of kind of sentence and Change of Degrees of comparison. Comprehension of a given passage.
- 2. Basic Knowledge on Stenography: Introduction and Basic Knowledge Consonants, Joining of Strokes, Vowels, Intervening Vowels. Position of Outlines. Grammalogues, Punctuation Marks, Diphthongs & Triphones Circles- Small/ Large, Loops-Small & Large, Initial Hooks of "R" & "L" Alternative Forms, Use of Circles and Loops to Initial Hooks, Final Hooks of "N" & "F/V", Use of Circles and Loops to Final Hooks, Hook of 'Shun', 'H' (Aspirate), Use of Alternative Forms of 'R', Use of Upward/Downward 'L', Use of Upward/Downward 'SH', Compound Consonants, Indication of Vowels, Halving of Strokes, Doubling of Strokes, Use of Diphones, Use of Initial & Medial Semi-Circles, Use of Prefixes, Use of Suffixes Etc., Contractions, Representation of Common Figures, Vocalisation of Essential Vowels, Phraseography, Interaction, Note Taking

- Fundamentals of Computer application: Introduction to Computers: Generation of computers, Characteristic and classifications of computers. Components of Computer: CPU, Various I/O Devices, Memory & its types, (Memory Hierarchy, Storage Media), Computer Software and their types, Operating System.
- (C) Scheme of Shorthand Dictation & Typing Test: A limited no. of candidates, maximum 10(ten) times of total posts (in category wise) will be selected merit wise for Shorthand Transcription & Type Writing Test on the basis of the result of the Written Examination, subject to securing minimum qualifying marks (50% for UR candidates, 45% for Scheduled Castes candidates and 40% for Scheduled Tribes category candidates) or otherwise as fixed by the Departmental Selection Committee. The Shorthand Transcription and Typing Tests will be of 35 marks each. Minimum qualifying marks for Shorthand Test and Typing Test will be 14 marks each or otherwise as fixed by the Departmental Selection Committee. If a candidate remains absent in the Type Writing & Shorthand Writing & Transcription his/her candidature will be treated as cancelled. The Shorthand Transcription and Typing writing Test will be taken on Computer. If the candidate fails in Shorthand and Typing Test, he/she will not be eligible to appear for Personality Test.
- a) Dictation of two passages in English containing 400 words for transcription to ascertain in the speed in Shorthand [Duration 05 minutes for dictation and 25 minutes for transcription] b) A passage in English containing 400 words for typing ascertain the speed in typing [Duration:10 minutes]
- (D) Interview cum Personality Test: The candidates who will be found qualified in the Type Writing & Shorthand Transcription will be called to appear in the Personality Test. The total marks for the Personality Test will be 30. If a candidate remains absent in the personality Test, his/her candidature will be treated as cancelled. Final Merit List will be prepared on the basis of the total marks obtained in the Written Examination plus the marks obtained in the Type Writing & Shorthand Writing & Transcription Test and marks obtained in the Personality Test.

Signature of the Committee Members

(Debashish Barman) Member

Principal, WITI, Indranagar

Representative of NIT, Agartala Member

Member

Principal, ITI, Indranagar

Sri Tapan Das) Member

Manager (Credit), Directorate of (I&C)

(Sri Siddhartha Das)

Member

Asst. Professor, TIT Narsingarh

(Sri Subash Ch. Das) Chairman

Addl. Directorate of (I&C)

SYLLABUS FOR DIRECT RECRUITMENT OF SR. INSTRUCTOR (LANGUAGE), GROUP-'C', NON-GAZETTED UNDER THE DEPARTMENT OF INDUSTRIES AND COMMERCE, GOYT, OF TRIPURA

The Examination will comprise of Two successive stages viz. (i) Written Examination carrying 170 marks and (ii) An Interview cum Personality Test carrying 30 marks.

(A) <u>Scheme of the Written Examination</u>: The Written Examination will consist of one paper viz. a paper on "General knowledge & Current Affairs" and "General English & Composition". The paper will be of an Objective Type and descriptive type. The paper will carry 170 marks and will be of Two and a half (2½) hours duration. The paper consist of Two Parts, namely 1) Part-I General knowledge & Current Affairs (50 questions of 01 marks each) ii) Part-B "General English & Composition" (120 marks).

#### (B) Details Syllabus for the Written Examination:

#### PART-I: GENERAL KNOWLEDGE & CURRENT AFFAIRS

**General knowledge:** Question will include knowledge of Indian History, Geography & Constitution of India of such a nature which the candidate shall able to answer without any special study. Question on Tripura and North Eastern States, its historian Topography will also be included.

**Knowledge of Current Affairs :-**Question will include the knowledge of current events of Local, National & International important and of such matters of everyday observation and experiences in their scientific aspect as may be expected of an educated person who has not made a special study of any scientific subjects.

#### PART-II: GENERAL ENGLISH & COMPOSITION

- 1. **English Essay Writing**: An essay of about 600 words to test a candidate's ability to\_write in English. Topics on the affairs relating to the state or general topic.
- 2. Report Writing: A report of about 400 words to test a candidate's ability to briefing the event & write in English on given event or situation.
- 3. Precie Writing: To write a précis of a series of correspondence or a summary of given passage to test candidate's capacity of comprehension and expression.
- 4. Official letter writing: Word limit 200
- 5. Comprehension Test: A passage for Comprehension with questionnaires.
- **6. English Textual Grammar:** English Textual grammar will cover Synonyms, Antonyms, Punctuation, Use of Common Phrase & Idioms. Use of appropriate Preposition & Articles. Spotting Errors and Transformation of sentences i.e Change of voice, Change of Narration, Change of kind of sentence and Change of Degrees of comparison.

#### (C) Distribution Marks for Written Examination:

#### Part-A: General Studies

SI. No	Topic	Allotted Marks
1	General knowledge	25
2	Knowledge of Current Affairs	25
	Total	50

## Part-B: GENERAL ENGLISH & COMPOSITION

SI. No	Topic	Allotted Marks
1	English Essay Writing	20
2	Report Writing	15
3	Precie Writing	15
4	Official letter writing	15
5	Comprehension Test	15
6	Textual Grammar	40
Total		120

(C) Interview cum Personality Test: A limited no. of candidates, maximum 5(five) times of total posts (in category wise) will be selected merit wise on the basis of the result of the Written Examination, subject to securing minimum qualifying marks (50% for UR candidates, 45% for Scheduled Castes candidates and 40% for Scheduled Tribes category candidates) or otherwise as fixed by the Departmental Selection Committee. The total marks for the Personality Test will be 30. If a candidate remains absent in the personality Test, his/her candidature will be treated as cancelled. Final Merit List will be prepared on the basis of the total marks obtained in the Written Examination and marks obtained in the Personality Test.

Signature of the Committee Members

Member

Principal, WITI, Indranagar

(Sri Anumoy Debbarma) Member

Principal, ITI, Indranagar

(Sri Siddhartha Das) Member

Asst. Professor, TIT Narsingarh

Representative of NIT, Agartala Member

(Sri Tapan Das) Member Manager (Credit), Directorate of (I&C)

Chairman Addl. Directorate of (I&C)

(Sri Subash Ch. Das)

# SYLLABUS FOR DIRECT RECRUITMENT OF SR. INSTRUCTOR (SOCIAL STUDY), GROUP-'C', NON-GAZETTED UNDER THE DEPARTMENT OF INDUSTRIES AND COMMERCE, GOVT. OF TRIPURA

The Examination will comprise of Two successive stages viz. (i) Written Examination (Multiple Choice Type Test) carrying 170 marks and (ii) An Interview cum Personality Test carrying 30 marks.

(A) <u>Scheme of the Written Examination</u>: The Written Examination will consist of one paper viz. a paper on "General knowledge & Current Affairs" and "Social Studies Aptitude". The paper will be of an Objective Type consisting of 170 Multiple- Choice Question. The paper will carry 170 marks and will be of Two and a half (2½) hours duration. The paper consist of Two Parts, namely 1) Part-I General knowledge & Current Affairs (50 questions of 01 marks each) ii) Part-II "Social Studies Aptitude" (120 questions of 01 marks each). There will be Negative marks for MCQ. For each question for which a wrong answer has been given by the candidate, **one-fourth** of the marks assigned to that question will be deducted as penalty.

#### (B) Details Syllabus for the Written Examination:

## PART-I GENERAL KNOWLEDGE & CURRENT AFFAIRS

**General knowledge**: Question will include knowledge of Indian History, Geography & Constitution of India of such a nature which the candidate shall able to answer without any special study. Question on Tripura and North Eastern States, its historian Topography will also be included.

**Knowledge of Current Affairs:**-Question will include the knowledge of current events of Local, National & International important and of such matters of everyday observation and experiences in their scientific aspect as may be expected of an educated person who has not made a special study of any scientific subjects.

## **PART-II SOCIAL STUDIES APTITUDE**

## 1. Basic Concept and function of Management:

- Introduction, Definition of Management, Characteristics of Management, Difference/Relationship between Administration, Management and Organisation, Levels of Management, Managerial Skills: Technical, Conceptual, Human Relations Skills.
- Introduction, Planning, Forecasting, Organising, Staffing, Directing, Motivating, Controlling, Co-ordinating, Communicating, Decision Making etc.

## 2. Entrepreneurial Development Skills:

Definition of entrepreneurship, Characteristics of entrepreneurship, Factors influencing entrepreneurship, Types and Functions of Entrepreneurs. Need for promotion of entrepreneurship, Entrepreneurial Environment, Govt. policies for setting-up new small enterprises, SWOT analysis.

#### Industrial Legislation:

Introduction to Labour Legislation, Need of Industrial ACT, Factory ACT-1948, Workmen's Compensation ACT-1923, Employees state Insurance Act -1948, Payment of wage Act-1936, Minimum wage Act-1948, Employees provident fund Act 1952, Apprentice Act 1961.

#### 4. Quality Management Tools:

Definitions of Quality, Importance of Quality, Quality Circle (QC), Concept of PDCA Cycle (PLAN,DO,CHECK,ACT), Define ISO. Japanese 5's technique, Kaizen,TPM, SGA(Small group activity), Introduction to concept of TQM, QMS(Quality Management system).

### Industrial Psychology:

Introduction, Scope of Industrial Psychology, Human Behaviour, Human Relations, Theories of Motivation, Trade Unions, Handling of Workers Grievances etc.

## 6. Leadership and Supervisory:

Introduction, Definition of Leadership, Functions of Leadership, Qualities of Leadership, John Adair's Model of three Inter-related Circles of Leadership, Theories of Leadership, Supervision etc.

#### 7. Productivity:

Productivity and Production, Measurement of Productivity, Productivity Index, Importance of Productivity, Means of Increasing Productivity, "Six Lines of Attack" to Improve Productivity, Productivity and Fatigue etc.

- 8. Basic knowledge on Computer: Introduction to Computers: Generation of computers, Characteristic and classifications of computers. Components of Computer: CPU, Various I/O Devices, Memory & its types, (Memory Hierarchy, Storage Media), Computer Software and their types, Operating System.
- (C) Interview cum Personality Test: A limited no. of candidates, maximum 5(five) times of total posts (in category wise) will be selected merit wise on the basis of the result of the Written Examination, subject to securing minimum qualifying marks (50% for UR candidates, 45% for Scheduled Castes candidates and 40% for Scheduled Tribes category candidates) or otherwise as fixed by the Departmental Selection Committee. <u>The total marks for the Personality Test will be</u> 30. If a candidate remains absent in the personality Test, his/her candidature will be treated as cancelled. Final Merit List will be prepared on the basis of the total marks obtained in the Written Examination and marks obtained in the Personality Test.

Signature of the Committee Members

Member Principal, WITI, Indranagar

(numoy D&bbarma) Member

Principal, ITI, Indranagar

(Sri Siddhartha Das) Member

(Sri Subash Ch. Das)

Asst. Professor, TIT Narsingarh

Representative of NIT, Agartala Member

(Sri Tapan Das) Member Manager (Credit), Directorate of (1&C)

Chairman Addl. Directorate of (I&C)

# SYLLABUS FOR DIRECT RECRUITMENT OF SR. INSTRUCTOR (DRESS MAKING), GROUP-'C', NON-GAZETTED UNDER THE DEPARTMENT OF INDUSTRIES AND COMMERCE, GOVT. OF TRIPURA

The Examination will comprise of Two successive stages viz. (i) Written Examination (Multiple Choice Type Test) carrying 170 marks and (ii) An Interview cum Personality Test carrying 30 marks.

(A) <u>Scheme of the Written Examination</u>: The Written Examination will consist of one paper viz, a paper on "General knowledge & Current Affairs" and "Trade Aptitude". The paper will be of an Objective Type consisting of 170 Multiple- Choice Question. The paper will carry 170 marks and will be of Two and a half (2½) hours duration. The paper consist of Two Parts, namely 1) Part-I General knowledge & Current Affairs (50 questions of 01 marks each) ii) Part-II "Trade Aptitude" (120 questions of 01 marks each). There will be Negative marks for MCQ. For each question for which a wrong answer has been given by the candidate, **one-fourth** of the marks assigned to that question will be deducted as penalty.

#### (B) Details Syllabus for the Written Examination:

#### PART-I GENERAL KNOWLEDGE & CURRENT AFFAIRS

**General knowledge**: Question will include knowledge of Indian History, Geography & Constitution of India of such a nature which the candidate shall able to answer without any special study. Question on Tripura and North Eastern States, its historian Topography will also be included.

**Knowledge of Current Affairs:**-Question will include the knowledge of current events of Local, National & International important and of such matters of everyday observation and experiences in their scientific aspect as may be expected of an educated person who has not made a special study of any scientific subjects.

#### **PART-II TRADE APTITUDE**

#### 1. Basics of Fashion Concept and Methodology:

Color - Definition and Origin, characteristics (hue, value and Intensity), color harmony & Color Schemes, psychology of color and its application in apparel market. Elements of Design - Line, shape, form, color & texture. Lines - varieties & their application in a design. Shapes - Types - Natural, stylized, geometrical and abstract. Principles of Design - Balance, proportion, rhythm, harmony & emphasis. Balance - asymmetrical and symmetrical. Types - Formal, Informal and Radlal. Proportion or scale - planning the shapes and space . Rhythm - Ihrough repetition, alteration, progression and gradation. Emphasis using contrast colors and background. Harmony of lines, shapes, color and textures. Introduction to necklines, waistlines, hemlines, collars, sleeves, cuffs, plackets and pockets. Fullness applied in apparel - tucks, pleats, gathers, shirring, frills or ruffles, flounces.

#### 2. Basics Knowledge on of Textiles Manufactures:

Terminology - Fibre, Yarn, Elasticity, Absorbency, Resiliency, Drapability, Twist, Blend. Introduction to textile fibres & their classification on the basis of their origin. Manufacturing process and properties of different fibres-Cotton, linen, wool, silk, nylon. Yarn Construction – Introduction and manufacturing process of yarn, Types of yarns. Yarn properties – Linear, density, size, twist, twist direction, strength & uniformity, Weaving – Definition, principal and process. Basic Weaves – Plain weave, Twill weave and Satin weave.

#### 3. Basic Knowledge on Sewing Techniques:

Sewing Machine – Parts of sewing machine Common defects in sewing machine and their remedies. Care and maintenance of sewing machine. Different types of sewing machine Knowledge of size of

needles, thread stitches according to the fabric. Body Measurements – Taking body measurements. Measurements required for different garments, Standardization & size charts, Study of measurement charts, study of human proportions, different figure type and defects, Eight Head Theory its principle and application. Terminology – Notches, grain, grain line, construction lines, centre front and back line, bias, true bias, bust line, waist line, seam line, seam allowances, darts, dart points.

#### 4. Basics of Garment Fabrication:

Basic Hand Stitches - Basic stitches with hand and sewing machine, basting (even & uneven), Running, buttonhole, heming, back stitch, half back stitch, blind stitch, Cross stitch, types of tacking, their use, construction and faults. Temporary stitches, Permanent stitches and their use. Basic Machine Stitches - Seams, Interlocking, Overlocking, Piping, Facing. Different types of Placket opening, types of necklines, types of collars, types of sleeves, types & positioning of yokes & pockets. Importance of Darts, Tucks and Pleats for proper fitting, their use in different garments. Importance of Darts, Tucks and Pleats for proper fitting, their use in different garments. Necessity of lining and interlining, Importance of fitting

## 5. Drafting and Pattern Making:

Scope and importance of drafting, Drafting terminology, Drafting tools and equipment. Concepts of Basic Pattern and Grading, rules for developing basic patterns, pattern materials &, limitations, Pattern Making Tools, Introduction to Computer Aided Pattern Making and Grading, different types of pattern, importance of pattern, difference between paper pattern and drafting.

#### 6. Computer Application in Fashion:

Introduction to computer Hardware and Software, Microsoft office. Corel Draw- Garment Designing, Styling, Alteration, Coloring, Erasing, Painting, etc. Aobe Photoshop practices.

(C) Interview cum Personality Test: A limited no. of candidates, maximum 5(five) times of total posts (in category wise) will be selected merit wise on the basis of the result of the Written Examination, subject to securing minimum qualifying marks (50% for UR candidates, 45% for Scheduled Castes candidates and 40% for Scheduled Tribes category candidates) or otherwise as fixed by the Departmental Selection Committee. The total marks for the Personality Test will be 30. If a candidate remains absent in the personality Test, his/her candidature will be treated as cancelled. Final Merit List will be prepared on the basis of the total marks obtained in the Written Examination and marks obtained in the Personality Test.

Signature of the Committee Members

Member

Principal, WITI, Indranagar

(nuntity) Debbarma Member

Principal, ITI, Indranagar

(Sri Siddhartha Das) Member

Asst. Professor, TIT Narsingarh

Representative of NIT, Agartala Member

(Sri Tapan Das) Member Manager (Credit), Directorate of (1&C)

(Sri Sübash Ch. Das) Chairman Addl. Directorate of (I&C) SYLLABUS FOR DIRECT RECRUITMENT OF SR. INSTRUCTOR (FASHION TECHNOLOGY), GROUP-'C', NON-GAZETTED UNDER THE DEPARTMENT OF INDUSTRIES AND COMMERCE, GOVT. OF TRIPURA

The Examination will comprise of Two successive stagles viz. (i) Written Examination (Multiple Choice Type Test) carrying 170 marks and (ii) An Interview cum Personality Test carrying 30 marks.

(A) <u>Scheme of the Written Examination</u>: The Written Examination will consist of one paper viz, a paper on "General knowledge & Current Affairs" and "Trade Aptitude". The paper will be of an Objective Type consisting of 170 Multiple- Choice Question. The paper will carry 170 marks and will be of Two and a half (2½) hours duration. The paper consist of Two Parts, namely 1) Part-I "General knowledge & Current Affairs" (50 questions of 01 marks each) ii) Part-II "Trade Aptitude" (120 questions of 01 marks each). There will be Negative marks for MCQ. For each question for which a wrong answer has been given by the candidate, **one-fourth** of the marks assigned to that question will be deducted as penalty.

#### (B) Details Syllabus for the Written Examination:

#### PART-I GENERAL KNOWLEDGE & CURRENT AFFAIRS

**General knowledge**: Question will include knowledge of Indian History, Geography & Constitution of India of such a nature which the candidate shall able to answer without any special study. Question on Tripura and North Eastern States, its historian Topography will also be included.

**Knowledge of Current Affairs**:-Question will include the knowledge of current events of Local, National & International important and of such matters of everyday observation and experiences in their scientific aspect as may be expected of an educated person who has not made a special study of any scientific subjects.

#### PART-II TRADE APTITUDE

## 1. History of World Art and Culture:

- Introduction to world Art & Culture: Basics of 'Visual perception' and 'Visual Communication', Ancient Civilizations & materials used.
- Visual Art: Rajput and Mughal Miniature Painting/ architecture. Temple Architecture in South India. Ajanta painting, Ellora sculptures, famous Indian Art and Artists.

## 2. Fashion Studies Concept and Methodology:

- Introduction to Fashion: Definition and Origin, reasons for change in fashion, classification of fashion, Style, Classic, FAD, Trend, Fashion Designing – designers' role in styling and production of costumes. Fashion as a socio cultural phenomenon, Factors affecting fashion – Social, Political, Technological, Geographical, Demographical, Psychographic, Lifestyle Changes
- Fashion & Culture: High culture(Fine art, Literature, Classical music, Theatre), Pop culture: (Television, Pop Music, Movies, Celebrity culture), Low culture: (Activities pursued by "Special – interest – groups" outside the mainstream), study fashion in relation with Modernity and Technological advancement, Street styles.
- Theories of Fashion and Fashion Terminology: Fashion theory, Fashion Cycle, Fashion Seasons,
   Fashion Terminologies Design, Prototype, Manufacturing, Product Launch, Retail Store,
   Couture, Mass Produced, Fashion Designer, Stylist, Fashion Journalist, Fad, Fit, Pattern etc.

- Design: Definition, Types Structural and decorative design.
- Elements of Design: Line, shape, form, colour & texture. Lines varieties & their application in a design. Shapes – Types – Natural, stylized, geometrical and abstract.
- Principles of Design: Balance, proportion, rhythm, harmony & emphasis. Balance –
  asymmetrical and symmetrical. Types Formal, Informal and radial. Proportion or scale –
  planning the shapes and space.
- Rhythm: through repetition, alternation, progression and gradation. Emphasis using contrast
  colours and background. Harmony of lines, shapes, colour and textures.
- Colour Definition and Origin Characteristics(hue, value and intensity), Colour Wheel, colour harmony and colour schemes. Psychology of colour and its application in apparel market. Texture – types of texture and its application in clothing.
- Designer Study: Indian Designers, International Designers
- Fashion Brands & Icons: Fashion Brands, Fashion Capitals, Fashion Icons and Role of Fashion in movies, Sports, Politics.
- Fashion Illustration: Definition, Importance & Role of Fashion Illustration in todays competitive fashion world, Methods & their application.
- Introduction to neck lines, waistlines, hemlines, collars, sleeves, cuffs, plackets and pockets. Fullness applied in apparel tucks, pleats, gathers, shirring frills or ruffles.
- **Silhouettes:** Types and their application in everyday use. Skirts Basic concepts in designing the variety of skirts. Trousers Basic concepts in designing the variety of trousers.
- Wardrobe Planning: Design development for formal, casual, party and sports wears for men, women and kids based on their location.

#### 3. Basics of Textile Manufacture:

- Textile Fibres: Classification of textile fibres and their general & essential properties, Natural Fibres, Man made Fibres
- Yarn Construction: Classification of yarns and their types, characteristic features of yarn, yarn count system, Twist
- · Woven Fabric Construction: Classification of woven fabrics, Types of Weaves, Fabric Count
- Dyeing: Classification of dyes a: Natural Dyes, b: Synthetic Dyes, c: Ecofriendly Dyes. Batik, Tie & Dye
- Introduction to Printing: Brief study on different styles of Printing & different methods of Printing,
   Defects in Dyed and Printed Cloths causes and remedies.

#### 4. Techniques of Surface Ornamentation:

- Introduction to Surface Ornamentation and Embroidery, General rules for Hand and Machine Embroidery, Special attachments to sewing machines for embroidery, Tools and Equipments, Needles, Threads.
- Transferring design on fabric, study of basic stitches, Traditional embroidery.

#### Garment Construction:

- Elements and Functions of Clothing-Garment Analysis and Its Classification, Measurement and Size Charts for Men, Women and Children, Requirement and Breakdown of Garments
- Flow Process, Case study on Standard Body Measurements of different countries for Men, Women and Children Clothing.
- Concepts of Basic Pattern and Grading. Rules for Developing Basic Patterns, Pattern Materials
   Limitations, Pattern Making Tools, Introduction to Computer Aided Pattern Making and Grading.
- Scope and importance of drafting and pattern making, terminology, drafting equipment and its use, types of layout, principles of layout, Importance of layout.

- Study of human body with reference to muscles, joints, organs, growth of body, various considerations in making of cloth.
- Various methods of taking measurements on the body. Taking measurements of over garments.
- Description of Basic Garment Sewing Machinery parts Needle, Take-up Lever, Bobbin, Bobbin Case, Presser Foot, Tension Disc, Feed Dog.
- Identification and Classification of Sewing Machine, Lock Stitch, Chain Stitch, Over Lock and Flat Lock.
- Brief Study on Classification of Stitches & Seams and their applications, study about Flow of Processor for sewing various styles of garments, various sewing defects, causes and remedies.
- Brief study on Trims and Accessories, sewing thread, needle, label, zips, lining, Interlining and fasteners, Quality parameters of accessories and trims.

## 6. Fashion Management:

- Marketing Management: Introduction to marketing management, Need of marketing information, Developing marketing strategies, Product Pricing, Distribution, Promotion
- Fashion Business Management: Introduction, Environment of fashion, Movement of fashion, Fashion Business, Retailing, Patent.
- Fashion Merchandising: Introduction to Fashion Merchandising, Market, Responsibility, Roles, Management, Career option.

## 7. Computer Application in Fashion:

- Introduction to computer Hardware and Software, Microsoft office.
- Corel Draw- Garment Designing, Styling, Alteration, Coloring, Erasing, Painting, etc. Aobe Photoshop practices.

(C) Interview cum Personality Test: A limited no. of candidates, maximum 5(five) times of total posts (in category wise) will be selected merit wise on the basis of the result of the Written Examination, subject to securing minimum qualifying marks (50% for UR candidates, 45% for Scheduled Castes candidates and 40% for Scheduled Tribes category candidates) or otherwise as fixed by the Departmental Selection Committee. <u>The total marks for the Personality Test will be 30.</u> If a candidate remains absent in the personality Test, his/her candidature will be treated as cancelled. Final Merit List will be prepared on the basis of the total marks obtained in the Written Examination and marks obtained in the Personality Test.

Signature of the Committee Members

Member

Principal, WITI, Indranagar

(Sri Anumoy Debbarma) Member

Principal, ITI, Indranagar

(Sri Siddhartha Das) Member

Asst. Professor, TIT Narsingarh

Representative of NIT, Agartala Member

(Sri Tapan Das) Member Manager (Credit), Directorate of

(1&C)

(Sri Subash Ch. Das) Chairman Addl. Directorate of (I&C)

# SYLLABUS FOR DIRECT RECRUITMENT OF SR. INSTRUCTOR (COPA), GROUP-'C', NON-GAZETTED UNDER THE DEPARTMENT OF INDUSTRIES AND COMMERCE, GOVT. OF TRIPURA

The Examination will comprise of Two successive stages viz. (I) Written Examination (Multiple Choice Type Test) carrying 170 marks and (ii) An Interview cum Personality Test carrying 30 marks.

(A) Scheme of the Written Examination: The Written Examination will consist of one paper viz, a paper on "General knowledge & Current Affairs" and "Trade Aptitude". The paper will be of an Objective Type consisting of 170 Multiple- Choice Question. The paper will carry 170 marks and will be of Two and a half (2½) hours duration. The paper consist of Two Parts, namely 1) Part-1 "General knowledge & Current Affairs" (50 questions of 01 marks each) ii) Part-1 "Trade Aptitude" (120 questions of 01 marks each). There will be Negative marks for MCQ. For each question for which a wrong answer has been given by the candidate, one-fourth of the marks assigned to that question will be deducted as penalty.

#### (B) Details Syllabus for the Written Examination:

## PART-I GENERAL KNOWLEDGE & CURRENT AFFAIRS

**General knowledge**: Question will include knowledge of Indian History, Geography & Constitution of India of such a nature which the candidate shall able to answer without any special study. Question on Tripura and North Eastern States, its historian Topography will also be included.

**Knowledge of Current Affairs**:-Question will include the knowledge of current events of Local, National & International important and of such matters of everyday observation and experiences in their scientific aspect as may be expected of an educated person who has not made a special study of any scientific subjects.

## PART-II TRADE APTITUDE

#### 1. Computer Organization and Architecture:

Machine instructions and addressing modes. ALU, data-path and control unit. Instruction pipelining. Memory hierarchy: cache, main memory and secondary storage; I/O interface (interrupt and DMA mode).

#### 2. Programming and Data Structures:

Programming in C. Recursion. Arrays, stacks, queues, linked lists, trees, binary search trees, binary heaps, graphs.

#### 3. Digital Logic:

Boolean algebra. Combinational and sequential circuits. Minimization. Number representations and computer arithmetic (fixed and floating point).

#### 4. Microprocessor & Microcontroller:

Function of microprocessors- architecture of 8086- pin configuration and functions – tristate bus concept - generation of control signals - bus timings – demultiplexing – tlags - memory decoding - interfacing of RAM and EPROM - I/O addressing - I/O mapped I/O - and memory mapped I/O schemes - instruction execution - fetch/execute cycle - instruction timings and operation status.

Microconfroller 8051 – Architecture - pin configurations - internal block schematic - PORTO, PORT1, PORT2, PORT3, idle & power down mode - power control register - program protection modes - flash programming & verification. I/O interfaces with microcontroller, Real Time Control Issues, Embedded Systems

## 5. Algorithms:

Searching, sorting, hashing. Asymptotic worst case time and space complexity. Algorithm design techniques: greedy, dynamic programming and divide-and-conquer. Graph search, minimum spanning trees, shortest paths. Section.

### 6. Theory of Computation:

Regular expressions and finite automata. Context-free grammars and push-down automata. Regular and contex-free languages, pumping lemma. Turing machines and undecidability.

#### 7. Compiler Design:

Lexical analysis, parsing, syntax-directed translation. Runtime environments. Intermediate code generation.

## 8. Operating System:

Processes, threads, inter-process communication, concurrency and synchronization, Deadlock, CPU scheduling. Memory management and virtual memory, File systems.

## 9. Computer Networks:

Concept of layering. LAN technologies (Ethernet). Flow and error control techniques, switching. IPv4/IPv6, routers and routing algorithms (distance vector, link state). TCP/UDP and sockets, congestion control. Application layer protocols (DNS, SMTP, POP, FTP, HTTP). Basics of Wi-Fi, Network security: authentication, basics of public key and private key cryptography, digital signatures and certificates, firewalls.

## 10. Web Technology:

Basics of Internet:- Concept of Internet, Working of Internet, Specification and technical details for establishing Internet. Types and function of Modem, Internet connectivity methods (Terminal emulation, Dial up, dedicated, Broadband, RF Link, VSAT, ISDN etc.) 3. Tools and Services on internet-Emall, Usenet, FTP, Telnet, IRC, Video conferencing, Search Engines, Proxy Server, Nelworking Devices (NIC, bridges, Routers, Repeaters, Hubs/Switch, Gateways etc., Web Browsers (Netscape and Internet Explorer to surf Internet). 4. IP Addressing Internet domains, domain name server (DNS), TCP/IP protocols, Internet service providers, Intranets, IP Addressing, IP Hoader, Subnetting, DNS

(C) Interview cum Personality Test: A limited no. of candidates, maximum 5(five) times of total posts (in category wise) will be selected merit wise on the basis of the result of the Written Examination, subject to securing minimum qualifying marks (50% for UR candidates, 45% for Scheduled Castes candidates and 40% for Scheduled Tribes category candidates) or otherwise as fixed by the Departmental Selection Committee. The total marks for the Personality Test will be 30. If a candidate remains absent in the personality Test, his/her candidature will be treated as cancelled. Final Merit List will be prepared on the basis of the total marks obtained in the Written Examination and marks obtained in the Personality Test.

Signature of the Committee Members

(Debashish Barman ) Member Principal, WITI, Indranagar

(Sri Andmoy Debbarma) Member Principal, ITI, Indranagar (Sri Siddhartha Das) Member Asst. Professor, TIT Narsingarh

Representative of NIT, Agartala Member

(Sri-Tapan Das)

Member

Manager (Credit), Directorate of
(I&C)

(Sri Subash Ch. Das) Chajrman Addl. Directorate of (I&C)

# SYLLABUS FOR DIRECT RECRUITMENT OF SR. INSTRUCTOR (DTPO), GROUP-'C', NON-GAZETTED UNDER THE DEPARTMENT OF INDUSTRIES AND COMMERCE, GOVT. OF TRIPURA

The Examination will comprise of Two successive stages viz. (i) Written Examination (Multiple Choice Type Test) carrying 170 marks and (ii) An Interview cum Personality Test carrying 30 marks.

(A) Scheme of the Written Examination: The Written Examination will consist of one paper viz. a paper on "General knowledge & Current Affairs" and "Trade Aptitude". The paper will be of an Objective Type consisting of 170 Multiple- Choice Question. The paper will carry 170 marks and will be of Two and a half (2½) hours duration. The paper consist of Two Parts, namely 1) Part-I General knowledge & Current Affairs (50 questions of 01 marks each) ii) Part-II "Trade Aptitude" (120 questions of 01 marks each). There will be Negative marks for MCQ. For each question for which a wrong answer has been given by the candidate, one-fourth of the marks assigned to that question will be deducted as penalty.

#### (B) Details Syllabus for the Written Examination:

## PART-I GENERAL KNOWLEDGE & CURRENT AFFAIRS

**General knowledge**: Question will include knowledge of Indian History, Geography & Constitution of India of such a nature which the candidate shall able to answer without any special study. Question on Tripura and North Eastern States, its historian Topography will also be included.

**Knowledge of Current Affairs**:-Question will include the knowledge of current events of Local, National & International important and of such matters of everyday observation and experiences in their scientific aspect as may be expected of an educated person who has not made a special study of any scientific subjects.

## PART-II TRADE APTITUDE

## 1. Introduction to printing process:

Evolution of Printing - Invention of movable wooden and metal type printing.- Lithography- Offset Printing-Intaglio Grayure-Flexography- Screen Printing Digital Printing

Structure of Printing Industry- Pre-media, Prepress - Film reproduction, Image assembly, Plate making and Digital prepress, Press and Post Press Sections Flow chart.

Applications of Printing Process – Offset, Intaglio, Gravure, Flexography, Screen Printing and Digital printing.

### 2. Principles of Printing Processes:

Basic Principles of Letterpress, Offset, Flexography, Gravure. Screen Printing and Digital Printing . Advantages and Limitations of Printing process- Letterpress, Offset, Flexography, Gravure and Screen Printing.

## 3. Classification of Offset Printing Machines:

Classification of Offset Machines- Sheet fed and Web fed Offset machines, Basic configuration of sheet fed offset machine. Single colour sheet-fed offset press, Multi colour sheet-fed press, Offset perfecting press and small offset press. Classification of web offset Machines In-line web offset press, Blanket- to blanket web offset press and Satellite type web offset press.

## 4. Flexography Printing:

Basic configuration of flexography machine. Types of flexography machine - In-line- type flexography press, Stack type flexography press and Satellite of flexography in Food packaging.

### 5. Gravure & Screen Printing:

Classification and types of Gravure machine- Gravure printing unit, printing cylinder, Doctor Blade and Impression cylinder. Screen printing machine – parts of screen printing press. Types of screen printing machines – Flat –bed hinged frame machines, Flat- bed vertical lift machines, Cylinder-bed machines, Container printing machines and Rotary screen machines.

#### 6. Printer's Material Science:

- Photographic Materials and Chemistry of Photography- Knowledge on photographic materials and chemistry of photography, knowledge of photographic emulsion and film base, film exposure, development bath and fixing bath, chemistry of washing.
- Image carriers offset plate making, gravure cylinder making, flexographic plate making, screen printing process, use of computer.
- Printing Inks and Toners: knowledge of printing inks and toners, its nature, raw materials used in ink, classification and differences of ink, physical properties, rheological properties, problems encountered in ink, toners
- Colour science basic concept, perception, types of colours, attributes of colour, colour differences and management.
- Basics of paper: constituent raw materials, properties of paper structural, physical, strength, optical, resistance, required characteristics of paper for news paper, package printing, troubleshooting and waste management.
- Packaging materials definition, materials used, properties, material selection, lamination and testing.

#### 7. Graphic Design:

- Knowledge on configuration of a computer, the hardware, perepheral devices, different graphic software.
- Concept of phototypesetting, principles of phototypesetting and processing method, conversion from photomechanical to electromechanical & finally to digital method.
- Knowledge on basics of different printing methods- laser, dot-matrix, ink-jet, thermal, image setter. Their components and functions.
- Knowledge on scanner technology, type of scanner, processing methods, image processing, optical/ magnetic character reader
- Concept of image resolution, gray scale, colour resolution, pixels, device resolution. CO-6 Understand.
- Knowledge on Image acquisation, scanning lines and resolutions, image size, editing images, unsharp mask.

## 8. Fundamentals of Computer application:

Introduction to Computers: Generation of computers, Characteristic and classifications of computers, Components of Computer: CPU, Various I/O Devices, Memory & its types, (Memory Hierarchy, Storage Media), Computer Software and their types, Operating System.

(C) Interview cum Personality Test: A limited no. of candidates, maximum 5(five) times of total posts (in category wise) will be selected merit wise on the basis of the result of the Written Examination, subject to securing minimum qualifying marks (50% for UR candidates, 45% for Scheduled Castes candidates and 40% for Scheduled Tribes category candidates) or otherwise as fixed by the Departmental Selection Committee. The total marks for the Personality Test will be 30. If a candidate remains absent in the personality Test, his/her candidature will be treated as cancelled. Final Merit List will be prepared on the basis of the total marks obtained in the Written Examination and marks obtained in the Personality Test.

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Manager (Credit), Directorate of
(I&C)

(Sri Siddhartha Das) Member Asst. Professor, TIT Narsingarh

(Sri Subash Ch. Das) Chairman Addl. Directorate of (I&C)

# SYLLABUS FOR DIRECT RECRUITMENT OF CRAFT INSTRUCTOR (BAMBOO), GROUP-'C', NON-GAZETTED UNDER THE DEPARTMENT OF INDUSTRIES AND COMMERCE, GOVT. OF TRIPURA

The Examination will comprise of Two successive stages viz. (i) Written Examination (Multiple Choice Type Test) carrying 170 marks and (ii) An Interview cum Personality Test carrying 30 marks.

(A) <u>Scheme of the Written Examination</u>: The Written Examination will consist of one paper viz. a paper on "General knowledge & Current Affairs" and "Trade Aptitude". The paper will be of an Objective Type consisting of 170 Multiple- Choice Question. The paper will carry 170 marks and will be of Two and a half (2½) hours duration. The paper consist of Two Parts, namely 1) Part-I "General knowledge & Current Affairs" (50 questions of 01 marks each) ii) Part-II "Trade Aptitude" (120 questions of 01 marks each). There will be Negative marks for MCQ. For each question for which a wrong answer has been given by the candidate, **one-fourth** of the marks assigned to that question will be deducted as penalty.

#### (B) Details Syllabus for the written Examination:

## PART-I GENERAL KNOWLEDGE & CURRENT AFFAIRS

**General knowledge:** Question will include knowledge of Indian History, Geography & Constitution of India of such a nature which the candidate shall able to answer without any special study. Question on Tripura and North Eastern States, its historian Topography will also be included.

**Knowledge of Current Affairs :-**Question will include the knowledge of current events of Local, National & International important and of such matters of everyday observation and experiences in their scientific aspect as may be expected of an educated person who has not made a special study of any scientific subjects.

## PART-II TRADE APTITUDE

- 1. History of Bamboo: History of Bamboo utilization, day-today use of bamboo and modern application of bamboo.
- Types of Bamboo: Future prospects of bamboo lechnology. Basics of Bamboo cultivation, type of propagation and practice in India and abroad,. Selection of bamboo to make various bamboo products.
- 3. Introduction of Tools: Introduction of various hand tools and machine tools used on Bamboo technology, measuring tools. Conversion table etc.
- 4. Preservation of Bamboo: Various techniques of Preservation & Treatment of Bamboo (Through ancient/traditional and modern methods) Colouring/Dying of Bamboo strips/ slivers
- 5. Bamboo processing Machine: Introduction of Bamboo Primary processing Machineries I.e Splitting Machine, Polishing Machine, Drill Machine Pressure Machine Glue Mixing and Weaving Machine and its uses Brief description of cross cutting• machine and how to operate, trouble shooting of this machines.
- 6. Process of seasoning of Bamboos: Anatomical properties/ Chemical properties/ Physical/ Mechanical properties of bamboos, Air seasoning/ Kiln seasoning/ chemical seasoning. Trace seasoning defects and take remedial action, Explain Gross anatomy-Parechyma/ Vascular bundles/fibres.

(C) Interview cum Personality Test: A limited no. of candidates, maximum 5(five) times of total posts (in category wise) will be selected merit wise on the basis of the result of the Written Examination, subject to securing minimum qualifying marks (50% for UR candidates, 45% for Scheduled Castes candidates and 40% for Scheduled Tribes category candidates) or otherwise as fixed by the Departmental Selection Committee. The total marks for the Personality Test will be 30. If a candidate remains absent in the personality Test, his/her candidature will be treated as cancelled. Final Merit List will be prepared on the basis of the total marks obtained in the Written Examination and marks obtained in the Personality Test.

Signature of the Committee Members

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Member

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Representative of NIT, Agartala Member (Sri Anumoy bébbarma) Member

Principal, ITI, Indranagar

(Sri Tapan Das) Member Manager (Credit), Directorate of

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(Sri Siddhartha Das) Member Asst. Professor. TIT Narsingarh

(Srf Subash Ch. Das)
Chairman
Addl. Directorate of (I&C)

# SYLLABUS FOR DIRECT RECRUITMENT OF CRAFT. INSTRUCTOR (WWT), GROUP-'C', NON-GAZETTED UNDER THE DEPARTMENT OF INDUSTRIES AND COMMERCE, GOVT. OF TRIPURA

The Examination will comprise of Two successive stages viz. (i) Written Examination (Multiple Choice Type Test) carrying 170 marks and (ii) An Interview cum Personality Test carrying 30 marks.

(A) <u>Scheme of the Written Examination</u>: The Written Examination will consist of one paper viz. a paper on "General knowledge & Current Affairs" and "Trade Aptitude". The paper will be of an Objective Type consisting of 170 Multiple- Choice Question. The paper will carry 170 marks and will be of Two and a half (2½) hours duration. The paper consist of Two Parts, namely 1) Part-I "General knowledge & Current Affairs" (50 questions of 01 marks each) ii) Part-II "Trade Aptitude" (120 questions of 01 marks each). There will be Negative marks for MCQ. For each question for which a wrong answer has been given by the candidate, **one-fourth** of the marks assigned to that question will be deducted as penalty.

## (B) Details Syllabus for the Written Examination:

### PART-I GENERAL KNOWLEDGE & CURRENT AFFAIRS

**General knowledge:** Question will include knowledge of Indian History, Geography & Constitution of India of such a nature which the candidate shall able to answer without any special study. Question on Tripura and North Eastern States, its historian Topography will also be included.

**Knowledge of Current Affairs**:-Question will include the knowledge of current events of Local, National & International important and of such matters of everyday observation and experiences in their scientific aspect as may be expected of an educated person who has not made a special study of any scientific subjects.

## PART-II TRADE APTITUDE

**Module-I:** Introduction of timber, growth of timber trees, cross-section of exogenous tree trunk, types of tree, different part of a tree, Soft & hard wood, their differences. Defects in timber, diseases of timber, knots, shakes, grains etc. Introduction of carpentry hand tools, classification and uses of marking, work holding devices. Measuring & testing tools.

**Module-II:** Type of bench vice and their uses. Introduction of different saw and their uses. Introduction of power circular saw and its use. Type of special saw and its uses i.e. -compass saw, coping saw, bow saw, fret saw. Saw sharpening and sharpening tools. Description of boring tools - Types, Parts, functions, size and application. Description of portable electrical drill machine. Drill bits, types, sizes etc. Hand augers description, sizes of augers, application of hand augers.

**Module-III:** Type of different planes and their proper uses in woodwork - Description, function and its size, setting, knowledge of sharpening and uses etc. Knowledge of using marking gauges. Important instruments necessary for checking flatness and twistness of surface. Sharpening and grinding angle of cutter. Portable power planer - useful in modern wood work and new technology design.

**Module-III:** Different type chisels - Definition, identification, their uses. Necessity of grinding and sharpening. Striking tools- Definition, types, application. Files - Types, uses .Care & maintenance of files . Function of work bench, bench vice, bench hook, etc.

**Module-IV:** Seasoning of timber - Definition, advantage and disadvantage of seasoning. Moisture content in timber and its effect on timber. Characteristics of wood, physical and mechanical properties of wood. Quality of good timber. Define the classification of wooden joint. Description of different types joint. Uses of joint: Framing joint angle joint and lengthening joint etc.

Module-V: Application of different types of preservation & Process of each treatment. Definition of housing joint. Different type of housing joint. Description of different dovetail joint and their function. Uses of dovetail joint. Glues - Types of glue and their uses.

Module-VI: Broadening joint description . Application of broadening joint. Setting of end side according to annual Rings as well as matching the grain stranding. Advantage of adhesives use and their types. Method of Dowel application.

Module-VII: Calculation of timber, weight, area, volume etc. Wood turning lathe - Description, Types, Sizes, Parts, Function, Types, Operation of wood turning lathe. Care & maintenance of wood turning lathe with oiling & greasing, Signature of cutting tools, Sanding machine – Description, Types, Parts of sanding machine.

Module-VIII: Introduction of pattern. Different hand tool including contraction rule. Different allocation. Different shrinkage. Drafting .Pattern allowance .Different types of timber used in pattern making. Types of pattern and their uses. Application of colour code in pattern making.

(C) Interview cum Personality Test: A limited no. of candidates, maximum 5(five) times of total posts (in category wise) will be selected merit wise on the basis of the result of the Written Examination, subject to securing minimum qualifying marks (50% for UR candidates, 45% for Scheduled Castes candidates and 40% for Scheduled Tribes category candidates) or otherwise as fixed by the Departmental Selection Committee. The total marks for the Personality Test will be 30. If a candidate remains absent in the personality Test, his/her candidature will be treated as cancelled. Final Merit List will be prepared on the basis of the total marks obtained in the Written Examination and marks obtained in the Personality Test.

Signature of the Committee Members

(Debashish Barman Member Principal, WITI, Indranagar

Representative of NIT, Agartala Member

(Sri Ariumby Debbarma) Member

Principal, ITI, Indranagar

(Śri Tapan Das) Member Manager (Credit), Directorate of (1&C)

Asst. Professor, TIT Narsingarh

(Sri Siddhartha Das)

Member

(Sri Subash Ch. Das) Chairman Addl, Directorate of (I&C)

# SYLLABUS FOR DIRECT RECRUITMENT OF SR. INSTRUCTOR (EMPLOYABILITY SKILLS), GROUP-'C', NON-GAZETTED UNDER THE DEPARTMENT OF INDUSTRIES AND COMMERCE, GOVT. OF TRIPURA

The Examination will comprise of Two successive stages viz. (i) Written Examination (Multiple Choice Type Test) carrying 170 marks and (ii) An Interview cum Personality Test carrying 30 marks.

(A) <u>Scheme of the Written Examination</u>: The Written Examination will consist of one paper viz. a paper on "General knowledge & Current Affairs" and "Employability Skills Aptitude". The paper will be of an Objective Type consisting of 170 Multiple- Choice Question. The paper will carry 170 marks and will be of Two and a half (2½) hours duration. The paper consist of Two Parts, namely 1) Part-I General knowledge & Current Affairs (50 questions of 01 marks each) ii) Part-II "Employability Skills Aptitude" (120 questions of 01 marks each). There will be Negative marks for MCQ. For each question for which a wrong answer has been given by the candidate, one-fourth of the marks assigned to that question will be deducted as penalty.

#### (B) Details Syllabus for the Written Examination:

## PART-I GENERAL KNOWLEDGE & CURRENT AFFAIRS

**General knowledge:** Question will include knowledge of Indian History, Geography & Constitution of India of such a nature which the candidate shall able to answer without any special study. Question on Tripura and North Eastern States, its historian Topography will also be included.

**Knowledge of Current Affairs**:-Question will include the knowledge of current events of Local, National & International important and of such matters of everyday observation and experiences in their scientific aspect as may be expected of an educated person who has not made a special study of any scientific subjects.

## PART-II EMPLOYABILITY SKILLS APTITUDE

### 1. Basic Concept and function of Management:

- Introduction, Definition of Management, Characteristics of Management,
   Difference/Relationship between Administration, Management and Organisation, Levels of Management, Managerial Skills: Technical, Conceptual, Human Relations Skills.
- Introduction, Planning, Forecasting, Organising, Staffing, Directing, Motivating, Controlling, Co-ordinating, Communicating, Decision Making etc.

#### 2. Principles and Practice of Management:

- Nature of management- Management & administration, management science or art, management as a profession, applying management theories in practise, effective management, different effectiveness approaches.
- Development of management thoughts:- Early thinking about management, importance to study management theories, evolution of management theory, scientific management school, Frederick W. Tylor, Henry) classical organisation theory school, the behavioural school, relation theories, management science school, the system approach.
- Management process & skills:- Management functions, management roles, levels of management, management skills and functional areas of management.
- Managers & environment:- concept of environmental, changing Indian, business environment, challenges before Indian managers.

- Social & ethical issues in management: social responsibility of manager, social responsibility
   & business, social responsibility in India, ethical issues in management, values, value system of Indian managers.
- Marketing Management: Marketing, Marketing Evolution and Future, Marketing Environment ,Marketing Research, Consumer Psychology and Marketing, Marketing Strategy, STP, Understanding Competition, Marketing Mix, Product and Product Strategy, Price and Pricing Strategy, Dealing with Distribution, Marketing Communication etc.

## 3. Entrepreneurial Development Skills:

Definition of entrepreneurship, Characteristics of entrepreneurship, Factors influencing entrepreneurship, Types and Functions of Entrepreneurs. Need for promotion of entrepreneurship, Entrepreneurial Environment, Govt. policies for setting-up new small enterprises. SWOT analysis.

### 4. Industrial Legislation:

Introduction to Labour Legislation , Need of Industrial ACT, Factory ACT- 1948 , Workmen's Compensation ACT-1923. Employees state Insurance Act -1948. Payment of wage Act-1936. Minimum wage Act-1948. Employees provident fund Act 1952. Apprentice Act 1961.

#### 5. Quality Management Tools:

Definitions of Quality. Importance of Quality. Quality Circle (QC). Concept of PDCA Cycle (PLAN,DO,CHECK,ACT), Define ISO. Japanese 5's technique. Kaizen,TPM, SGA(Small group activity), Introduction to concept of TQM, QMS(Quality Management system).

## 6. Industrial Psychology:

Introduction, Scope of Industrial Psychology, Human Behaviour, Human Relations, Theories of Motivation, Trade Unions, Handling of Workers Grievances etc.

## 7. Leadership and Supervisory:

Introduction, Definition of Leadership, Functions of Leadership, Qualities of Leadership, John Adair's Model of three Inter-related Circles of Leadership, Theories of Leadership, Supervision etc.

#### 8. Productivity:

Productivity and Production, Measurement of Productivity, Productivity Index, Importance of Productivity, Means of Increasing Productivity, "Six Lines of Attack" to Improve Productivity, Productivity and Fatigue etc.

9. Basic knowledge on Computer: Introduction to Computers: Generation of computers, Characteristic and classifications of computers, Components of Computer: CPU, Various I/O Devices, Memory & its types, (Memory Hierarchy, Storage Media), Computer Software and their types, Operating System.

(C) Interview cum Personality Test: A limited no. of candidates, maximum 5(five) times of total posts (in category wise) will be selected merit wise on the basis of the result of the Written Examination, subject to securing minimum qualifying marks (50% for UR candidates, 45% for Scheduled Castes candidates and 40% for Scheduled Tribes category candidates) or otherwise as fixed by the Departmental Selection Committee. The total marks for the Personality Test will be 30. If a candidate remains absent in the personality Test, his/her candidature will be treated as cancelled. Final Merit List will be prepared on the basis of the total marks obtained in the Written Examination and marks obtained in the Personality Test.

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Member

Manager (Credit), Directorate of
(I&C)

(Sri Siddhartha Das) Member Asst. Professor, TIT Narsingarh

(Sri Subash Ch. Das) Chairman Addl. Directorate of (I&C)